

II. REMARKS

Claims 1-25 are pending. The Applicants' attorney has amended claims 1, 4-6, 8-9, and 17-19, but these amendments add no new matter to the patent application. In light of the following, all of the currently pending claims are in condition for allowance, and, therefore, the Applicants' attorney requests the Examiner to withdraw all of the outstanding rejections. But if after considering this response the Examiner does not allow all the claims, the Applicant's attorney requests that the Examiner contact him to schedule a teleconference to further the prosecution of the application.

Rejection of Claims 1-3 and 5-8 Under 35 U.S.C. § 102(a) as Being Anticipated By Torelli

Claim 1

Claim 1 recites a control step following programming of memory cells by means of a programming algorithm of a program-verify type, wherein the control step is skipped for some cells which have to reach a predetermined logic state.

For example, referring to FIG. 2 and paragraphs 44-45 of the patent application, during the programming of cells in states "10" and "01", the cells that need to reach "00" are not controlled. Programming pulses are applied in parallel to all the cells having not reached the desired threshold. Once the positioning of the cells in "10" and "01" occurs, the subsequent controls involve only those cells which should have become "00". During the control step, cells are not controlled all together but they are conveniently selected in order to reduce the source resistance and consumption effect, but without penalizing change times.

In contrast, Torelli fails to teach or suggest that, for multiple cells programmed simultaneously, a control step is skipped for cells that have yet to reach a predetermined logic state. For example, at, e.g., col. 6, lines 19-45, Torelli teaches that, in programming a group of cells, starting from the minimum threshold state (or erased state), programming pulses are simultaneously applied to the cells that must be programmed at a different level from the minimum threshold level. In practice, the cells that must be programmed are

supplied with a set of programming pulses each followed by a verify step, until the threshold voltage of at least one of the cells reaches the value corresponding to the first level. Afterwards all the cells that must be programmed at levels greater than the first level receive a certain number of pulses without verify. As such, Torelli teaches that while any one of the cells in a set being programmed is verified (controlled), all such cells being programmed are simultaneously verified and are thus not skipped. Accordingly, Torelli fails to teach or suggest the limitations of claim 1.

Claim 6

Claim 6 is patentable for reasons similar to those discussed in support of the patentability of claim 1.

Claims 2-3, 5 and 7-8

Claims 2-3, 5 and 7-8 are patentable by virtue of their respective dependencies from claims 1 and 6.

Rejection of Claims 10-12 and 15-25 Under 35 U.S.C. § 102(a) as Being Anticipated By Admitted Prior Art

Claim 10

Claim 10 recites partially programming first and second multilevel non volatile memory cells having respective first and second states, and determining the first state but not determining the second state.

In contrast, and as can be clearly seen in FIG. 1 of the application, the admitted prior art determines the partially programmed states (*i.e.*, "10") of both first and second cells. Regarding the Ver3 determination, the "00" state is a fully programmed, not partially programmed, state. As such, the admitted prior art fails to teach or suggest partially programming first and second multilevel non volatile memory cells having respective first and second states, and determining the first state but not determining the second state.

Claims 20 and 25

Claims 20 and 25 are patentable for reasons similar to those discussed in support of the patentability of claim 10.

Claims 11-12, 15-19 and 21-24

Claims 11-12, 15-19 and 21-24 are patentable by virtue of their respective dependencies from claims 10, 20 and 25.

Rejection of Claims 13 and 14 Under 35 U.S.C. § 103(a) as Being Unpatentable Over the Admitted Prior Art

Claims 13 and 14 are patentable by virtue of their dependency from claim 10.

Conclusion

In light of the foregoing, claims 1-25 are in condition for full allowance, which is respectfully requested.

In the event additional fees are due as a result of this amendment, payment for those fees has been enclosed in the form of a check. Should further payment be required to cover such fees you are hereby authorized to charge such payment to Deposit Account No. 07-1897.

DATED this 1st Day of February, 2005.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'P. G. Scott Born', with a horizontal line extending to the right.

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